

# BULLETIN D'INFORMATION-NEWSLETTER

ASSOCIATION INTERNATIONALE DE CYBERNETIQUE  
INTERNATIONAL ASSOCIATION FOR CYBERNETICS

Association sans but lucratif

Annexe à  
Supplément to

**CYBERNETICA**

No 3, 1991

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NOUVELLES DE L'ASSOCIATION - NEWS OF THE ASSOCIATION

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CONGRES ET CONFERENCES - CONGRESSES AND MEETINGS

FAX NUMBER - 81/23.09.45 - TELEFAX

ASSOCIATION INTERNATIONALE DE CYBERNETIQUE a.s.b.l.

Secrétariat : Palais des Expositions, Place André Rijckmans, B.5000 NAMUR (BELGIQUE) Tél. 081/73.52.09  
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Telex n° 59101 BEP Namur B.



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NOUVELLES DE L'ASSOCIATION - NEWS OF THE ASSOCIATION

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Adresse de l'Association pour  
le courrier électronique

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Address of the Association by  
electronic mail

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The Proceedings of the 12th Congress  
are available since October 1990

Price : 9.000 Belgian francs

Pages : about 1.500 pages

Les actes du 12ème Congrès sont  
disponibles depuis octobre 1990

Prix : 9.000 francs belges

Pages : ± 1.500 pages

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13e Congrès International de Cybernétique

Namur, 24-28 août 1992

Nous attirons votre attention sur le fait que le programme définitif sera bientôt arrêté.

Nous vous rappelons que les résumés des communications (maximum 1 page) doivent nous parvenir au plus tard le 31 décembre 1991.

Les textes définitifs (maximum 5 pages) devront parvenir au Secrétariat de préférence avant le début du Congrès et au plus tard pour le 28 août 1992. En dehors de ces dates limites, le Secrétariat ne garantit pas la publication.

13th International Congress on Cybernetics

Namur, August 24-28, 1992

We attract your attention on the fact that the final programme will soon be drawn up.

We remind you that the papers' summaries (maximum 1 page) must be in by December 31, 1991.

The final texts (maximum 5 pages) must be sent to the Secretary's Office preferably before the beginning of the Congress and at the latest on August 28, 1992. Beyond these limits, the Secretary's Office does not guarantee the publishing.

Symposiums en cours de préparation

Symposia in Active Preparation

Nom Name	Thème ou titre du symposium Subject or title of the symposium
Gavril ACALUGARITEI (Roumania)	Evolutions and Metaevolutions from the Point of View of the Invariants Associated to the Transformation Groups
Greg KS. ANDONIAN (Canada)	Computers in Architecture
Chang-Gen BAHG (China)	Complex Systems and their Evolution
Marianne BELIS (France)	La gestion d'incertitudes dans les problèmes de décision
Armand CARON (France)	Les réseaux neuromimétiques, l'acquisition des connaissances et leurs traitements
Francis-Charles COLLOT (France)	Les notions de temps et d'évolution en Cybernétique
Daniel DUBOIS Robert P. MERTENS (Belgium)	New Concepts for Holographic Computation
Haneef FATMI (United Kingdom)	Human Communications
Uri FIDELMAN (Israel)	Similar Strategies in the Brain's Performance of Cognitive and Motor Tasks
Vladimir FOMICHOV (USSR)	Cybernetics and Theory of Natural-Language-Processing Systems
Charles FRANCOIS (Argentine)	Les systèmes humains homéostatiques ou émergents
Helmar FRANK (Federal Republic of Germany)	
Wojciech GASPARSKI (Poland)	Cybernetics and Human Behaviour
Petros GELEPITHIS (United Kingdom)	Invariants of Cognitive Science : Scope, Limits, Implications
Arthur GUILLEZ (France)	Applications des mathématiques à la biologie et à la médecine



- |                                     |   |
|-------------------------------------|---|
| Michael HEATHER<br>(United Kingdom) | Law and Ordering in New Age Society   |
| Noel J. HEATHER<br>(United Kingdom) | Cybernetics and Literature  |
| Francis HEYLIGHEN<br>(Belgium)      | The Principia Cybernetica Project :<br>Computer-supported Cooperative<br>Development of an Evolutionary-systemic<br>Philosophy  |
| Alexis JDANKO<br>(Israel)           | - Cybernetic Systems Approach to<br>History<br>- Cybernetic Systems Interpretation of<br>the Religious Idea : From the<br>Primitive to the Monotheist   |
| Tetsunori KOIZUMI<br>(U.S.A.)       | Europ'92 : European Integration and its<br>Implication for the World System   |
| George E. LASKER<br>(Canada)        | Education for the 21st Century  |
| Jean-Claude LEVY<br>(France)        | Réseaux neuroniques : modèles<br>biologiques et applications pratiques  |
| Fernand E. MAIRLOT<br>(Belgique)    | L'information : quelle est son essence ?  |
| Michel MERCIER<br>(Belgique)        | Les liens entre la psychologie et<br>l'informatique dans la conception, le<br>développement, l'utilisation et<br>l'évolution de logiciels adaptés aux<br>besoins des personnes avec un handicap |
| Thiebaut MOULIN<br>(France)         | Systèmes naturels : mise en oeuvre de<br>nouveaux formalismes et vérifications<br>expérimentales  |
| Edmond NICOLAU<br>(Roumania)        | Adaptability - Learning - Fuzziness   |
| Aldo NIGRO<br>(Italy)               | Educational Cybernetics   |
| Guo-Qing BAO                        |   |
| Armand PHALET<br>(Belgium)          | Foundational Problems of Machine<br>Intelligence : Cybernetics and logic<br>Confronted with Requirements of<br>Formally Accountable Foundation of<br>Machine Learning                           |
| George SERBAN<br>(USA)              | Cybernetic Medicine   |
| Jiri SLECHTA<br>(United Kingdom)    |   |

Madan Gopal SINGH  
(United Kingdom)

Decision Technologies for Improving  
Managerial Quality

Jiri SLECHTA  
(United Kingdom)

- Cybernetic Sciences (Physics,  
Chemistry, Biology)  
- Cybernetic Sociology and/or Economics

Doreen STEG  
(U.S.A.)

Determinacy and Indeterminacy in Complex  
Systems

Fernand VANDAMME  
(Belgium)

Cognitive Modelling for Knowledge and  
Information Technology : Manuel and  
Automatic Tools

Droits d'inscription

Registration Fee

Membres de l'Association et auteurs de communications 6000 FB  
Members of the Associations and authors of papers

Autres participants 10000 FB  
Other participants

Conditions spéciales pour jeunes chercheurs de moins de 30 ans (sur présentation d'une attestation de leur université) 2000 FB  
Special conditions for young researchers under 30 years (with certificate from their university)

Ces droits comprennent la participation au Congrès, les documents préparatoires et les pauses-café.

The registration fee covers Congress attendance, preprints and coffee-breaks.

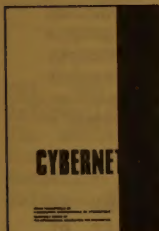


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Cybernetica - Revue de l'Association Internationale de Cybernétique - Review of the International Association for Cybernetics, Palais des Expositions, Place A. Rijckmans, B-5000 Namur, Belgium.



no 3/1991 : Mentiformes et paysagement (M. MARUYAMA) - Algorithms for the Approximation of Corneal Contour and Radius of Curvature (I. KARPOUZAS) - On an Evolutionary and Negentropic Interpretation of Cybernetics (A. JDANKO) - Influence du bruit de mesure sur l'identification des paramètres d'un modèle d'Andrews (B. JAMMES) - On Some Proposed "Biotonic Modifications" of Quantum Mechanics and the Consistency of this Theory with the Observation of the Biological Reality (E. CONTE) - A Major Reference Work for the Cybernetics Community : the Systems and Control Encyclopedia (M.G. SINGH) - Methodological and Metrical Attempts to Modern Instruction (E. BEKJAROV - A. ATHANASSOV)

Esprit Information Exchange System - IESNEWS - Review published on behalf of the DGXIIII : Telecommunications, Information Industries and Innovation, edited by Peter Popper, European Institute of Information Management, 13, rue de Bragance, L-1255 Luxembourg, Luxembourg.

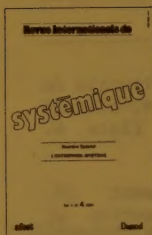
Economic Computation and Economic Cybernetics Studies and Research Review of the Academy of Economic Studies, Laboratoarele catedret de cibernetica, Calea dorobantilor 15-17, Cod 71131 R, Bucharest, Romania.

Civilta Cibernetica, Rivista di sintesi scientifica, ricerca e cultura, rivolta al futuro - Review of the Istituto di Cybernetica, Via Paulo III, 47031 Repubblica di San Marino.



no 3/1991 : Nuove ipotesi sul C.A.T.S. (S. ARMANDO) - Un software al servizio dell'ambiente (G. ANGELUCCI - E. FRANCA) - Hypertext (P. FEZZI - R. MACCHI) - "Gestione delle risorse umane" ovvero la cultura organizzativa degli anni '90 (G. ANTONIO) - Quella dell'azienda è una morte annunciata ? - Il primo uomo nello spazio; 30 anni di storia (G. RIVECCIO) - La pensée naturelle et la pensée artificielle dans l'oeuvre d'Odobleja (I. STRACHINARU)

Revue Internationale de Systémique - Revue éditée par l'AF CET, contacter M. R. Vallée, AF CET, 156, Boulevard Péreire, F-75017 Paris, France.

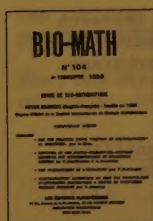


no 3/1991 : L'anneau des disciplines : enquêtes sur quelques concepts théoriques et gnoséologiques - A propos des cadres conceptuels de référence : ordres - A propos des concepts théoriques et de la construction des objectivités : niveaux d'organisation - A propos des présupposés théoriques et des concepts gnoséologiques : finalité, réductionnismes, approches "auto-" - L'anneau des disciplines - Entre physique et biologie - Langages disciplinaires et significations - Science et sens

Cybernetics and Systems - Edited by Robert TRAPPL, Department of Medical Cybernetics and Artificial Intelligence, University of Vienna, Freyung 6, A-1010 Vienna, Austria (in cooperation with the Austrian Society for Cybernetic Studies, Vienna).

Grundlagenstudien aus Kybernetik und Geisteswissenschaft/  
Human Kybernetik - International Review for Modelling and Application  
of Mathematics in Humanistics - Review of the Cybernetic Institute,  
Kleinenberger Weg 16B, 4790 Paterborn, Federal Republic of Germany.

Continuing the Conversation. A Newsletter on Ideas in Cybernetics - Newsletter of the American Society for Cybernetics, c/o HortIdeas, Route 1, Box 302 Gravel Switch, KY 40328, USA.



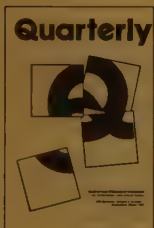
Revue de Bio-mathématique - Organe officiel de la Société Internationale de Biologie Mathématique, 11bis, avenue de la Providence, 92160 ANTONY, France.

no 113/1991 : Le paradoxe d'Einstein Podolsky et Rosen dans une modélisation non-classique du temps (F. COLLOT) - Use and Misuse of the Inhibition Parameter I50 in the Interpretation of Ligand-Receptor Interactions : a Theoretical Treatment (M. BOUNIAS - M.R.J. MORGAN)

no 114/1991 : Information temporelle et signification dans une mort par infarctus (B. FROUSSART) - Idées libres (A. SPARTE) - L'oeuvre mathématique de Jean Ricard

Computers and Artificial Intelligence - Review of the Institute of Technical Cybernetics, Slovak Academy of Sciences, Dúbravská cesta 9, 842 37 Bratislava, Czechoslovakia.

CWI Newsletter - Newsletter of the Center for Mathematics and Computer Science, Kruislaan 413, 1098 SJ Amsterdam, The Netherlands.



no 1/1991: Introductory Recommendations for the Study of Hopf Algebras in Mathematics and Physics (M. HAZEWINKEL) - The Furstenberg Structure Theorem in Topological Dynamics (J. DE VRIES) - Universal Representation of the Behavior of Linear Systems in Both Discrete and Continuous Time : a Unified Overview (S.J. HEGNER) - Factorization beyond the Googol with MPQS on a Single Computer (H. TE RIELE - W. LIOEN - D. WINTER)

CWI GMD INRIA Newsletter - Editors: Centrum voor Wiskunde en Informatica (CWI), Kruislaan 413, NL-1098 SJ Amsterdam - Gesellschaft für Mathematik und Datenverarbeitung mbH (GMD), ScholB Birlinghoven, Postfach 1240, D-5205 Sankt Augustin 1 - Institut National de Recherche en Informatique et en Automatique (INRIA), Domaine de Voluceau-Rocquencourt, B.P.105, F-78153 Le Chesnay Cedex, France.

GESI Newsletter - Newsletter of the "Asociacion Argentina de Teoria General de Sistemas y Cibernética - Capitulo Argentino de Society for General Systems Research - Buenos Aires C.C. 33 1641 Acassuso Tel. 792-7160 Buenos Aires - Argentina.

Kybernetyka - Edited by Academy of Sciences of the Ukrainian SSR - 252207 KIEV 207, USSR - Publication language : Russian.

no 3/1991 : Coding and Enumeration of Spanning Trees in Cleytmen Golden Graphs (L.M. KOGANOV) - Method for construction Minimal Fail Cross-Sections (D.A. ALEKSEEV) - Algorithms of Minimization of Finite Acylic Automata and Term Matching (S.L. KRIVOJ) - Sufficient Conditions of Equivalence of Three-Band Automata (V.I. BORISENKO) - Reliability of Solutions Obtained by the Method of finite Elements (I.N.

MOLCHANOV) - The Algorithms of Channel Routing of L.S.I. (S.E. MARKOSYAN - G.S. GASPARYAN) - Application Program for Solution of Discrete and Nonlinear Optimization (DISNEL Package) (V.S. MIKHALEVICH - V.A. ROSHCIN - N.G. ZHURBENKO - L.N. KOZERATSKAYA - T.T. LEBEDEVA - G.A. POTAPCHUK) - One Method of Minimization of Total Energy of Quantum Mechanic Systems (B.N. LYASHENKO) - Optimal Distribution of the Constrained Integral Resource on a Network of Arbitrary Topology (A.I. PTUSHKIN - I.V. LYSENKO) - Stable Symmetrical Methods of Secants with Restoration (O.P. BURDAKOV) - Estimation of Variable Parameters of regression as Two-Criterial Problem (A.S. KORKHIN) - Statistical Criteria Based on Training Mappings (I.G. BAIRAMOV - Yu.I. PETUNIN) - Algorithms Efficient in Speed of Response for Computation of Estimates of Correlation Functions of Large-Dimensionality Signals (K.A. ABDIKALILOV - V.K. ZADIRAKA - O.S. KONDRATENKO - S.S. MELNIKOVA) - New Exactly Solvable Examples for Controlled Markov Chains with Discrete Parameter (A.B. PIUNOVSKY - V.M. KHAMETOV) - Experimental Design on Detection of Signed Variables in the Linear Model (A.M. SLINKO) - On Normalizing Constants in Multiclass Queueing Networks (A.I. GERASIMOV) - Analytical-Statistical Estimators for Non-Stationary Reliability and Efficiency Indices of Semi-Markovian Systems (V.D. SHPAK) - The





Knowledge-Based Procedure for Solving Complicated Sets of Interrelated Problems (V.I. GRITSENKO - V.O. BOGEMSKY - T.M. KUCHERENKO) - Concerning Estimation of the Length of a Tree for Search of a Chance Proof in Many-Message General Calculi (Yu.N. KURIEROV) - A universal logical element over complex field (I.N. AIZENBERG)

no 4/1991 : Algorithms for Solution of Problem on the Biggest Set of In-Pairs Comparable Weighed Apexes of the Oriented Graph Without Contours (Vu.V. VOITISHIN) - Estimation of Time for Parallel Addition of Two Numbers (I.K. RYSTSOV) - Multifunctional Customizable Logic Moduli on the Base of Parametric Representation of the Functions of K-Valued Logic Over Quasifields (N.N. AIZENBERG - E.I. GERGO - Yu.L. IVASKIV - I.V. SEMION) - A Rapid Simulation Method for Estimation of the Functional Failure of High Reliable Systems (N.Yu. KUZNETSOV) - Active Failure Protection of Computer Systems Under Conditions of Comparable Durations of Problems Solutions and Pauses Between Them (I.B. SHUBINSKY - N.P. VASILIEV) - Estimation of the Maximum Structural Complexity of the Systems (V.N. OLMAN - H.L. SALUM) - Asymptotic Analysis of the Values of Queue in Computer Networks with a Multiple Access (V.V. ANISIMOV - Kh.L. ATADZHANOV) - The Raus-Hurwitz Stochastic Problems (I.N. LITVIN - Yu.E. BOREISHA) - Saddle Points and Active Antagonistic Equilibrium in Games with Multivalued Functionals (E.R. SMOYLYAKOV) - Probability Mixture of Absolute and Relative Priorities in the GI/HM2/1 System (E.A. TIMOFEEV) - Finite-Dimensional Regularizators for Problems of Optimal Control on Solutions of Incorrect Variation Inequalities (O.A. LISKOVETS) - Theoretical and Empirical Estimates of Error Stability of a Decision-Maker and Convergence Velocities of the Methods for search of the Most Preferable Element (M.V. MIKHALEVICH) - Quadratic Optimization on Combinatory Sits in  $R_n$  (Yu.G. STOYAN - S.V. JAKOVLEV) - Finding of Stationary Points of Half-Regular Functions (L.G. BAZHENOV) - Optimal Rules of the Stockpile Value Selection under Conditions of Incomplete Information on the Demand Distribution (L.S. STOIKOVA) - SIGMASTAT System : Concepts and Potentialities (I.V. SERGIENKO - I.N. PARASYUK - A.V. KALITA - E.S. KARPINKA - A.I. PROVOTAR - N.P. SKOPETSKAYA) - Arrangement of the Text in the Limited Bound Area (V.V. BROVARNIK) - Mathematical Simulation of Oscillation of the Neuron Membrane Potential Under Activation of its Excitatory and Inhibitory Synapses (O.V. BORISOVA - Yu.I. PETUNIN) - Specification Language for Processing of Technical-and-Economic Indices (V.V. MOROZ) - Maximal Elements of a Partially Ordered Set of Binary Vectors (N.N. AIZENBERG) - Criterion on Selection of Regularities in the Boolean Space of Indicators (L.A. ZAVADSKAYA - L.V. KHOMENKO) - Filtration of Half-Markovian Queueing Systems with Repeated Calls (L.I. LUKASHUK - Yu.A. SEMENCHENKO) - Characterization of Symmetric Broken Process of Recovery (V.D. SHPAK) - Convergence of Optimal Estimation Algorithms in Nonlinear Dynamic Systems for Distributed Parameters with Incomplete Information (M.V. BOICHUK - K.I. BOGAENKO)

Revista matematica - De la Universidad Complutense De Madrid, Universidad Complutense, Facultad de Matematicas, Ciudad Universitaria, 28040 Madrid, Spain.

Revista Internacional de Sistemas - Organo de la Sociedad espanola de sistemas generales (SESGE), Direccion y Redaccion, Revista Internacional de Sistemas, Dr. Gomez ULLA, 4, 28028 MADRID, Spain.

Communication and Cognition - An International Interdisciplinary Quaterly Journal, Editor Fernand VANDAMME, Blandijnberg, 2, B-9000 GENT, Belgium.

CC AI - The Journal for the Integrated Study of Artificial Intelligence Cognitive Science and Applied Epistemology, Quaterly Journal published by Communication and Cognition, Blandijnberg, 2, B-9000 GENT, Belgium.

CC AI



no 1/1991 : Mathematical fundamentals of the fractal theory of Artificial Intelligence (D. DUBOIS) - The suitability of fuzzy set theory for the representation and manipulation of imprecision and uncertainty in knowledge based systems (E. KERRE) - Evaluation sets : an order theoretic approach to fuzzy set theory (G. DE COOMAN) - Computer algebra (F. BRACKX - D. CONSTALES)

STATISTICAL THEORY AND APPLIED RESEARCH - Soviet-French-Italian joint-venture "Interquadro" is organizing the publication of a journal in mathematical statistics and its applications which will come out in English. This intention is brought about by the fact that "Interquadro" is engaged in electronic data processing and statistic data analysis research. The "Statistical Theory and Applied Research" is supposed to come out quarterly starting from 1991, 4-2nd Novopodmoskovny per., Moscow, 125130, USSR.

Les pages du CEFES - Périodique trimestriel du Centre d'étude et de formation pour l'éducation spécialisée a.s.b.l., av. Fr. Roosevelt, 50 - CP122, B-1050 Bruxelles, Belgium.

no 26/1991 : Qui est le CEFES ? - Difficultés en mathématique : remédiation pratique (M. PETIT) - L'intégration scolaire des enfants et adolescents déficients auditifs profonds et sévères : réflexion critique (B. ROBERFROID) - Liens entre systèmes visuels et posturaux chez des enfants IMC (M. DE COCK)

DELTAnews - Lettre d'information sur l'intégration des nouvelles technologies dans l'enseignement en Europe, publiée tous les deux mois avec l'aide de la Commission des Communautés européennes dans le cadre du projet DELTA par INTERMAPS : Les Editions du Logiciel d'Enseignement, Coventry Polytechnic, Universität Erlangen-Nürnberg, RFA

BEHAVIORAL SCIENCE - Journal published by the International Society for Systems Sciences and cosponsored by the Institute of Management Sciences, 428 East Preston Street, Baltimore, Maryland 21202, USA. ISSN 0005-7940.



METALOGICON - Rivista internazionale di logica pura e applicata, di linguistica e di filosofia, Corso Umberto I, 70, 80034 Marigliano, Italy

CAHIERS SYSTEMA - Cahiers édités par l'Association Systema, 30, rue Croix Bosset, 92310 Sèvres, France - Thiébaud Moulin, ENSTA, 32, boulevard Victor, 75015 Paris, France - ISSN 0243-6299

REVIEW OF RESEARCH - University of Novi Sad - Faculty of Science - Mathematics series - R. Vulcanovic, 21000 Novi Sad, dr Ilije Djuricica 4, Yugoslavia - ISSN 0352-0900

TECHNOLOGIES DE L'INFORMATION ET SOCIETE - Presses de l'Université du Québec, Case postale 250, Sillery, Québec G1T 2R1

MATHEMATICA BALKANICA - A quarterly published by the Bulgarian Academy of Sciences - National Committee for Mathematics - Djuro Kurepa, Zagrebaska ulica 7, 11000 Belgrade, Yugoslavia

PROBLEMS OF ENGINEERING CYBERNETICS AND ROBOTICS - Institute of Engineering Cybernetics and Robotics, 1113 Sofia, Acad. G. Bonchev Street, Bl. 2, Bulgaria

FACTA UNIVERSITATIS - SERIES : MATHEMATICS AND INFORMATICS - University of Nis, Trg bratstva i jedinstva 2, P.O. Box 123, 18000 Nis, Yugoslavia

COMPUTER ABSTRACTS - Technical Information Co. Ltd., PO Box 59, St. Helier, Jersey JE4 8PZ, British Channel Islands

INFORMATION WORLD REVIEW - The Information Community Newspaper - Learned Information (Europe) Ltd., Woodside, Hinksey Hill, Oxford OX1 5AU, United Kingdom

MULTIMEDIA REVIEW - Sandra Kay Helsel, Ph.D., Principal, Infinite Media, 7172 Regional St., Box 2701-269, Dublin, CA 94568, USA

no 2/1991 : Rancho Deluxe (D. SHAMONSKY) - Aesthetics and the Interface (N. LAZZARO) - The Relationship Between Multimedia and Expert Systems (J.P. COYNE) - The Implications of Education in Cyberspace (R. STUART - J.C. THOMAS) - Texturing Reality (K. PIMENTEL) - Design Techniques for Ensuring Structure and Flexibility in a Hypermedia Environment (S.J. LOVE - C.M. CHAPMAN - T.G. CONNELLY - J.D. TEN HAKEN)

FUZZY SYSTEMS & A.I. MAGAZINE - Center for Education and Research in Fuzzy Systems - Polytechnic Institute of Iasi, Copou 11, Iasi 6600, Romania - ISSN 1016-2119

no 0/1991 : Further analysis of the FPLL dynamical behaviour (I. BOGDAN - H.N. TEODORESCU) - Algebraic characterization of some fuzzy topological spaces (M. SAIT EROGLU) - Solution of fuzzy relational equations based on MAX-product composition (G.L. VACHKOV) - Entropy of a fuzzy partition. A survey and new results (D. DUMITRESCU) - Fuzzy splitters used in scheduling (M. STOICA) - Contribution to the determinant theory for fuzzy matroids (T. BUHAESCU) - A LMS algorithm with a fuzzy convergence factor (M. CHELARU - C. DUMITRESCU - H. TEODORESCU) - Fuzzy Hierarchical classification with adaptive prototype (H. POP - D. DUMITRESCU) - Recognition of handwritten characters using fuzzy methods (H. COSTIN - S. BEJENARIU) - L'analyse de TECMOs à canal induit utilisé pour le développement des informations fuzzy (E. SOFRON - C. POSA) - SPICE 2 modelling of the elementary fuzzy gates (I.C. TESU - E. SOFRON - H.N. TEODORESCU) - Computer-aided education in FSS (H.N. TEODORESCU)

ERICIM NEWS - European Research Consortium for Informatics and Mathematics, CWI, Kruislaan 413, NL-1098 SJ Amsterdam, The Netherlands

no 7/1991 : Cooperation - The European Scene - Esprit : a major Community Programme - Networks of Excellence - Research Activities : Visualisation - Technology Transfer - Events - People

BEHAVIORAL AND BRAIN SCIENCES - International Computer Science Institute, 1947 Center St., Suite 600, Berkeley, CA 94704-1105, USA

no 14:2/1991 : The quest for optimality : A positive heuristic of science ? (P.J.H. SCHOEMAKER) - An evolutionary analysis of rules regulating human inbreeding and marriage (N.W. THORNHILL) - Précis of Darwin, sex and status : Biological approaches to mind and culture (J.H. BARKOW)

NEURAL COMPUTATION - MIT Press Journals, 55 Hayward Street, Cambridge, MA 02142, USA - ISSN 0899-7667

no 3/1991 : A Practical Approach for Representing Context and for Performing Word Sense Disambiguation Using Neural Networks (S.I. GALLANT) - A Modified Quickprop Algorithm (A.C. VEITCH - G. HOLMES) - Removing Time Variation with the Anti-Hebbian Differential Synapse (G. MITCHISON) - Simulations of a Reconstructed Cerebellar Purkinje Cell Based on simplified Channel Kinetics (P.C. BUSH - T.J. SEJNOWSKI) - On the Mechanisms Underlying Directional Selectivity (H. OGMEN) - 2-Degree-of-freedom Robot Path Planning using Cooperative Neural Fields (M. LEMMON) - Parameter Sensitivity of the Elastic Net Approach to the Traveling Salesman Problem (M.W. SIMMEN) - FIR and IIR Synapses, a New Neural Network Architecture for Times Series Modeling (A.D. BACK - A.C. TSOI) - The Transition to Perfect Generalization in Perceptrons (E.B. BAUM - Y.D. LYUU) - Learning by Asymmetric Parallel Boltzmann Machines (B. APOLLONI - D. DE FALCO) - Generalization Effects of k-Neighbor Interpolation Training (T. KAWABATA) - Including Hints in Training Neural Nets (K.A. AL-MASHOUQ - I.S. REED) - On the Characteristics of the Autoassociative Memory with Nonzero-Diagonal Terms in the Memory Matrix (J.H. WANG - T.F. KRILE - J.F. WALKUP - T.L. JONG) - Handwritten Digit Recognition Using K Nearest-Neighbor, Radial-Basis Function, and Backpropagation

Neural Networks (Y. LEE) - A Matrix Method for Optimizing a Neural Network (S.A. BARTON)

COGNITIVE SCIENCE - A Multidisciplinary Journal of Artificial Intelligence, Linguistics, Neuroscience, Philosophy, Psychology, International Computer Science Institute, 1947 Center St., Suite 600, Berkeley, CA 94704-1105, USA - ISSN 0364-0213

no 2/1991 : Why No Mere Mortal Has Ever Flown Out to Center Field (J.J. KIM - S. PINKER - A. PRINCE - S. PRASADA) - Task Decomposition Through Competition in a Modular Connectionist Architecture : The What and Where Vision Tasks (R.A. JACOBS - M.I. JORDAN - A.G. BARTO) - Default Probability (D.N. OSHERSON - J. STERN - O. WILKIE - M. STOB - E.E. SMITH) - Complex Concepts (J. DIXON KELLER - F.K. LEHMAN)

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NOUVEAUX LIVRES - BOOK REVIEW

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**Titre :** La technologie de l'image : de la C.A.O. au chaos fractal - Sous la direction du Dr Ir Daniel Dubois - Academia, 42, passage de l'Ergot, B-1348 Louvain-La-Neuve, Belgique - ISBN 2-87209-125-4

Ce livre passionnera aussi bien les concepteurs et les développeurs d'images informatiques que les responsables en gestion technique. Ecrit par des universitaires et des industriels, il répond aux questions suivantes : Comment des réseaux de neurones artificiels peuvent-ils créer des images fractales ? Comment réaliser simplement sur son micro-ordinateur personnel des images fractales complexes à partir d'égalités et de différences ? Comment un micro-ordinateur dessine-t-il la topographie des routes ? A quoi servent ces méthodes numériques de Conception Assistée par Ordinateur ? Quels sont ces ordinateurs qui produisent automatiquement des graphiques ? Pourquoi l'ergonomie des images informatiques peut-elle empêcher la défaillance humaine dans l'entreprise ? Comment un logiciel peut-il superviser la gestion technique d'une industrie ?

**Title :** Towards Human Work : Solutions to problems in Occupational Health and Safety - M. Kumashiro, Department of Ergonomics, University of Occupational and Environmental Health, 1-1 Iseigaoka, Yahatanishi-ku, Kitakyushu, 807, Japan - ISBN 0-7484-0039-7

Over the past 30 years, the emphasis of ergonomics research has changed in order to encompass human-information and human-society systems. This book demonstrates the benefits of solution-oriented ergonomics from an interdisciplinary perspective. This is manifest in a shift from passive to active ergonomics which results in practical and useful guidelines for industry. A large number of the papers arise from Southeast Asia, providing important insights into occupational health and safety concerns in this part of the world. One of the major features is the discussion of ergonomic problems in several occupational spheres. These include physical work, computing, and the nuclear power industry. Among topics considered are human factors research and design, protective clothing, technical standards for equipment and worker safety, and the effect of automated production systems on individual workers. The book covers the wide range of contemporary problems in a comprehensive fashion and offers many solutions which strike a balance between the long-term, systematic, and holistic aspects of occupational ergonomics.

**Title :** Production Research : Approaching the 21st Century - Taylor & Francis Ltd, Rankine Road, Basingstoke, Hants, RG24 0PR, United Kingdom - ISBN 0-85066-752-6

Production research is currently attracting a great deal of interest from across a wide spectrum of specialities in both academia and industry. This interest was highlighted by the successful Tenth International Conference on Production Research held at Nottingham in

August 1989. It brought together leading researchers to discuss approaches to, and perspectives of, areas such as computer integrated manufacturing, computer-aided engineering and process planning and control. The book provides new research data on manufacturing processes, production management and manufacturing systems design. With over 100 contributions, this book reflects the latest developments and current thinking in production engineering and management worldwide.

Titre : La CAO, le DAO - Michel Loyer - Presses Universitaires de France, boulevard Saint-Germain, 90, 75005 PARIS, France - ISBN 2-13-043902-0

Utopie il y a dix ans, la CAO (Conception Assistée par Ordinateur) à la disposition de tous gagne chaque année un peu plus de terrain. Les expériences menées par les grandes sociétés dans l'informatisation de leurs bureaux d'études commencent à porter leurs fruits. La publicité faite autour de l'introduction généralisée de la CAO dans les grands groupes industriels (Aérospaciale, PSA, Avions Marcel Dassault,...) l'a cependant cataloguée, dans l'esprit du grand public, comme un outil de luxe, uniquement accessible aux grosses sociétés. La CAO sur gros ordinateur est alors entrée dans une ère de maturité avec seulement 10 à 15 % de croissance par an, concrétisée par le concept de Conception et Fabrication Assistée par Ordinateur (CFAO). Longtemps négligée par les grands fournisseurs de CAO/CFAO, la clientèle de PME/PMI a été séduite, dans un premier temps, par les applications DAO (Dessin Assisté par Ordinateur) permettant à un micro-ordinateur de remplacer la planche à dessin. Nombre d'utilisateurs ont alors compris que DAO signifie "Dessin Assisté par Ordinateur" et non "Dessin automatique par ordinateur".

Titre : Systems Directory - WISINET Secretariat, Felelos kiado : dr. Kiss Istvan, P.O. Box 446, Budapest, Hungary, H-1536



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CONGRES ET CONFERENCES - CONGRESSES AND MEETINGS  
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**ANNOUNCEMENT**

PERSPECTIVES TRANSDISCIPLINAIRES - OUVERTURES VERS LE XXIEME SIECLE

Date et lieu :  
2-6 décembre 1991, Paris, France

Pour de plus amples renseignements :  
Monsieur Marcel V. Locquin, Délégué général de l'UITF,  
44bis boulevard de la Libération, F-94300 Vincennes, France

INTERNATIONAL SYMPOSIUM ON URBAN STORMWATER MANAGEMENT

Date and place :  
February 4-7, 1992, Sydney, Australia

Further information :  
The Conference Manager, International Symposium on Urban Stormwater  
Management, The Institution of Engineers, 11 National Circuit Barton  
ACT 2600, Australia

INFORMATICA '92

Date and place :  
February 17-22, 1992, La Habana, Cuba

Further information :  
Palacio de las Convenciones, Informatica '92,  
Apartado 16046, La Habana, Cuba

ELEVENTH EUROPEAN MEETING ON CYBERNETICS AND SYSTEMS RESEARCH

Date and place :  
April 21-24, 1992, Vienna, Austria

Further information :  
Robert Trappl, Chairman, Department of Medical Cybernetics and  
Artificial Intelligence, University of Vienna, Freyung 6/2,  
A-1010 Vienna, Austria

ETRIQUE ET COMMUNICATION

Date et lieu :  
21 juin-1er juillet 1992, Cerisy-La-Salle, France

Pour de plus amples renseignements :  
Philippe Breton, 18, rue des Orphelins, 67000 Strasbourg, France

13th INTERNATIONAL CONGRESS ON CYBERNETICS  
13e CONGRES INTERNATIONAL DE CYBERNETIQUE

Date et lieu :  
24-28 août 1992, Namur, Belgique

Pour de plus amples renseignements :  
Association Internationale de Cybernétique -  
International Association for Cybernetics, Palais des Expositions,  
place Rijckmans, B-5000 Namur, Belgique-Belgium

TENTH INTERNATIONAL WHEELSET CONGRESS

Date and place :  
September 27 - October 1, 1992, Sydney, Australia

Further information :  
The Institution of Engineers, 11 National Circuit, Barton ACT 2600,  
Australia

COMMUNICATIONS '92

Date and place :  
October 13-15, 1992, Sydney, Australia

Further information :  
The Conference Manager, Communications '92  
The Institution of Engineers, 11 National Circuit, Barton ACT 2600,  
Australia

SYSTEC 92

Date et lieu :  
20-23 octobre 1992, München, Deutschland

Pour de plus amples renseignements :  
Münchener Messe- und Ausstellungsgesellschaft mbH  
Messegelände Postfach 12 10 09, D-8000 München 12, Deutschland

IMACS SYMPOSIUM ON SIGNAL PROCESSING AND NEURAL NETWORKS SPNN'93

Date and place :  
May 10-12, 1993, Montreal, Canada

Further information :  
Prof. Z. Jacyno, Department of Physics, University of Quebec at  
Montreal, P.O. Box 8888, Station A, Montreal, P.Q. Canada, H3C 3P8

**IMPORTANT**

**Le 13e CONGRES INTERNATIONAL DE CYBERNETIQUE** se tiendra à Namur, Belgique, à la fin du mois d'août 1992.

**Le 13th INTERNATIONAL CONGRESS ON CYBERNETICS** will be held in Namur, Belgium, at the end of August 1992.

Y participer vous intéresserait ? Alors renvoyez-nous la formule ci-dessous. Vous recevrez de plus amples informations en temps opportun.

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## CYBERNETICA

ISSN : 0011-4227

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prix de l'abonnement) : AIC - BULLETIN D'INFORMATION - NEWSLETTER  
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No index published - Pas de publication d'index.

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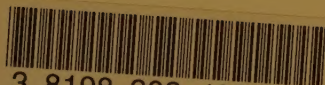
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